

**Statement of Carolyn W. Merritt
Chairman and Chief Executive Officer
U.S. Chemical Safety and Hazard Investigation Board
before the U.S. House of Representatives
Committee on Appropriations
Subcommittee on Veterans Affairs, HUD, and Independent Agencies
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Mr. Chairman, Congressman Mollohan, and members of the subcommittee, thank you for the opportunity to present the U.S. Chemical Safety Board's budget proposal for 2004. I come to you today with what I hope you will agree is positive news about the job CSB is doing for the public, workers, and industry.

With me is Mr. Charles Jeffress, who joined the CSB last June as the Chief Operating Officer. Many of you know Mr. Jeffress from his recent service as Assistant Secretary of Labor for Occupational Safety and Health.

Also new to the agency is Mr. John Bresland, who like me was appointed to the Board this summer by President Bush. The Board is now stronger than ever before, with leadership from the industrial, academic, labor, and public interest communities.

Mr. Chairman, you have spoken pointedly at times about the challenges the CSB has faced since 1998. Last fall you challenged me to show you what the CSB can do. Mr. Chairman, I have taken that message to heart, and we have produced results.

Within weeks of coming on board, Mr. Jeffress and I began to make significant changes in the management of the agency. We immediately took steps to boost productivity, improve strategic planning, and renew the agency's focus on its statutory mission of investigating chemical accidents.

In just the last six months, we have completed four major investigations and we plan to finish five more by the end of the fiscal year. We have more staff deployments than ever before and now have ten investigations underway, from Houston to New York City, from North Carolina to St. Louis.

Next year, with your continued support, we plan to complete twelve investigations -- three or four times what the agency could do only a couple of years ago.

The CSB is just 37 people strong, mostly scientists, engineers, and investigators. But we do what no other government agency or private organization does: when a major chemical accident occurs, we immediately deploy a team of chemical process experts to begin conducting an independent, scientific investigation. We don't just determine what happened, we determine why.

Our purpose is to prevent future accidents, not to issue fines or citations. Once we have established the root causes of accidents, we report our findings directly to the communities affected and the nation, and we issue recommendations to industry and government to improve safety. We then press for full implementation of these recommended safety actions.

No other organization has our unique mission to inform the public and industry about chemical accident hazards. Tragically, at no time in recent years has there been a greater need for an agency like ours. This winter has seen a rash of serious chemical accidents. Among our ten active cases, the Board is investigating major plant explosions in Kinston, North Carolina; Corbin, Kentucky; and Rosharon, Texas. These explosions have inflicted many deaths and injuries, imperiled hundreds of American jobs, and disrupted regional economies.

As a longtime safety professional, I *know* that all these accidents very likely could have been prevented. But that's a difficult message to have to convey to people like Antonia Diaz, the young wife of Octavio Diaz, who was one of the victims of the explosion this winter in Rosharon, Texas, south of Houston.

On January 13th, Mrs. Diaz was nine-months pregnant with their first child. She expected to be going into the hospital any day to begin a new and happy phase of her life with Octavio. Well she did go into the hospital -- but it was not to the delivery room, it was to the burn ward, where she had to watch helplessly as her husband fought for his life.

Octavio Diaz survived and is now recovering at home with their newborn son, but he and his family face a future of struggle as a result of his serious burn injuries. Antonia Diaz's brother, Francisco Perez, and her half-brother, Macario Martinez, both workers at the same plant, died at the scene of the accident. Another worker, Barry Rayburn, was gravely injured in the explosion, and sadly he died a few days ago never having left the hospital.

Mr. Chairman and members of the subcommittee, accidents like the explosion that struck the Diaz and Rayburn families simply do not have to happen. Back when I was a corporate safety official, we very much could have benefited from an agency like the CSB.

By bringing to light all the causes of chemical accidents – including hazards that are unknown, forgotten, or underestimated – CSB is in the forefront of building a safer industry. Let me add that chemical accidents are not just a problem of the chemical industry -- many companies that simply use or handle chemicals experience these accidents. For example, we are currently investigating accidents at a medical device company, an acoustic insulation manufacturer, and an architectural sign company – just to name a few.

We are here asking for a modest increase of \$1 million over our 2003 base budget. The Committee gave us adequate resources this year to hire seven new accident investigators since September, and I thank you for it. We now need additional funds to fully utilize our staff and maintain our increased productivity into next year.

The remainder of my testimony describes in detail the changes I have made at the agency, the higher level of activity we have achieved, and the reasons why a budgetary increase is required.

Unprecedented Level of Mission Accomplishment

Since last year's hearing, the Board has completed five major accident investigations. We have ten more investigations currently underway. All the accidents under investigation occurred between April 2002 and the present day. A summary of the recently completed investigations follows.

Completed Investigations

BP Amoco (Augusta, GA). On March 13, 2001, three workers were killed as they opened a process vessel containing hot plastic at the BP Amoco (now Solvay Advanced Polymers LLC) plant in Augusta, Georgia. The workers were killed when the partially unbolted cover blew off the vessel, expelling molten plastic. The Board report, issued in May 2002, found that the accident could have been avoided if the firm had instituted a program to better understand the chemical reaction that caused pressure accumulation within the process vessel. The Board issued eight specific recommendations to the company to prevent a similar incident in the future.

Motiva Enterprises (Delaware City, DE). On July 17, 2001, one worker was killed and eight others were injured when a sulfuric acid storage tank exploded and collapsed at the Motiva Enterprises LLC Delaware City Refinery. The explosion caused a massive release of sulfuric acid to the environment. The Board found that a spark from welding equipment had ignited flammable vapors from the storage tank, which was inadequately maintained and had holes rusted through its roof.

The Board identified significant deficiencies in Motiva's mechanical integrity program – the program responsible for monitoring and preventing

corrosion of the storage tank. Among the recommendations from this accident, the Board urged OSHA to regulate the safety of atmospheric storage tanks when they are connected to hazardous manufacturing processes.

The Board got strong support for its investigation and its recommendations from the entire Delaware Congressional delegation. Rep. Michael Castle and Sen. Joseph Biden both spoke forcefully at our public meeting in Wilmington on August 28, 2002, and they joined with Sen. Tom Carper in requesting action “as swiftly as possible” from OSHA Secretary John Henshaw. “Expanding coverage to include aboveground storage tanks will go a long way in reaching our common goal of reducing catastrophic events,” they wrote in a letter to Secretary Henshaw dated February 25, 2003.

Reactive Hazards (NJ, TX, and nationwide). Following the final CSB report in August 2000 on an incident at the Morton International plant in Paterson, New Jersey, the Board began an intensive study of 167 serious reactive chemical incidents from 1980 to 2001. On May 30, 2002, the Board held a hearing in Paterson to review the findings of the nationwide study. The Board found serious gaps in both industry practice and government regulations to control reactive hazards. Senator Corzine and Senator Lautenberg both spoke at the meeting and supported our investigative findings on this subject.

On September 17, 2002, in Houston, Texas, the Board issued its final report from the reactive hazards investigation. The Board recommended that OSHA amend its Process Safety Management standard to achieve more comprehensive control of reactive hazards. The Board also called on EPA to revise its chemical accident prevention program for the same purpose. A further recommendation requested the National Institute of Standards and Technology to develop a publicly available database of reactive hazard test information. There were also recommendations directed to several trade associations, unions, and other organizations.

Meanwhile, serious reactive incidents continue to occur around the country. CSB is conducting full investigations of two such incidents, in Pascagoula, MS, and Cranston, RI, and preparing a case study of a third recent incident in Ohio. All three processes where these accidents occurred were exempt from coverage under the OSHA and EPA process safety rules.

Georgia Pacific (Pennington, AL). On January 11, 2002, a hydrogen sulfide gas leak at the Georgia Pacific Naheola paper mill killed two workers and injured a dozen others. On November 20, 2002, the Board held a public meeting and issued its final report. The Board completed this investigation and issued its recommendations in less than a year.

The Board concluded that plant management had not followed good engineering and process safety practices when they earlier connected a drain from a truck unloading area into an acidic process sewer. On the day of the

incident, sodium hydrosulfide, a process chemical that had spilled in the unloading area, reacted to release deadly hydrogen sulfide gas when it contacted acidic material in the sewer. The toxic gas vented from the sewer through a nearby fiberglass manhole cover and engulfed the workers. The Board recommended that Georgia-Pacific Corporation review sewer system safety to prevent the inadvertent mixing of potentially reactive chemicals and also identify plant areas that may be at risk for hydrogen sulfide release.

Third Coast Industries (Pearland, TX). A massive fire, which broke out in the early morning hours of May 1, 2002, destroyed the Third Coast Industries blending facility south of Houston, in a blaze that consumed 1.2 million gallons of combustible and flammable liquids and lasted for more than 24 hours. Approximately 100 nearby residents were evacuated from their homes while the fire was allowed to burn itself out. The plant had no supply of fire water to aid emergency responders.

On March 6, 2003, the Board issued its final report on the accident at a public meeting in Houston. The Board found that better fire control systems could have spared the plant from total destruction and minimized the impact on nearby residents and businesses. Most widely used fire codes have provisions that could have greatly mitigated the spread of the fire at Third Coast, but where the plant is located in unincorporated Brazoria County there is no mandatory fire code. The Board recommended that the County adopt such a fire code, and initial discussions with County officials have been very positive.

Current Investigations

Kaltech Industries (New York, NY). The CSB is investigating a building explosion that injured dozens on April 26, 2002, in the Chelsea neighborhood of downtown New York. The explosion occurred at a company, Kaltech Industries, that manufactures architectural signs. A number of members of the public were among the injured. Preliminary findings indicate that the explosion occurred as a result of an uncontrolled chemical reaction during waste mixing operations. A final report is expected in June 2003.

DPC Enterprises (Festus, MO). On August 14, 2002, approximately 48,000 pounds of toxic chlorine gas were released from a stationary rail car being unloaded at the DPC Enterprises plant in Festus, south of St. Louis. The leak resulted from the rupture of an improperly constructed transfer hose and subsequent failure of several emergency shutdown devices. On December 4, the Board issued a safety advisory to chlorine users nationwide to verify the materials of construction of chlorine transfer hoses to prevent future gas leaks. The Board's final report on the DPC incident is expected in April 2003.

First Chemical (Pascagoula, MS). A violent explosion blew apart a large distillation tower at the chemical producer on the morning of October 13, 2002. CSB staff noted that the incident was a "close call" in that falling metal from the

explosion could have caused the release of deadly gases had it struck certain nearby storage tanks. Shrapnel did penetrate one nitrotoluene storage tank at the site, igniting a fire that burned for several hours. The CSB conducted a well-attended community meeting on the significance of this case at Pascagoula City Hall on January 15. A final report is expected later this year.

Catalyst Systems (Gnadenhutten, OH). On January 2, 2003, a violent explosion destroyed part of Catalyst Systems, a manufacturer of curing agents for automotive body fillers, located south of Cleveland. Investigators believe the explosion originated in a dryer used to concentrate benzoyl peroxide, a reactive chemical of the organic peroxide family. The blast caused one injury but could have been far worse had not most workers been at lunch when it occurred. CSB investigators are preparing a case study on this serious reactive chemical incident.

BLSR Operating (Rosharon, TX). This facility, located south of Houston, processes oil and gas field wastes, recovering petroleum and disposing of waste water. On January 13, 2003, two trucks were unloading gas field wastes into an open trench, when suddenly their diesel engines began to race (a sign of a flammable atmosphere). Moments later a flash fire occurred, engulfing the trucks, fatally burning three workers, and injuring several others. The Board is investigating this incident, looking at how potentially flammable gas field wastes are managed for safety. A final report will be issued this summer.

West Pharmaceuticals (Kinston, NC). On January 29, 2003, a massive explosion destroyed much of the West Pharmaceuticals plant that produced molded rubber medical products. A total of six people have died as the result of the blast, including several who initially survived only to die later from critical burn injuries. Others remain hospitalized. The shockwave from the explosion shattered windows hundreds of feet away and hurled debris up to two miles from the blast site. Damage to the plant was estimated at \$150 million, and hundreds of jobs were put in jeopardy. A large team of CSB investigators deployed immediately to the site, arriving the evening of the explosion. CSB investigators rapidly identified the likelihood of a chemical dust explosion and began a comprehensive investigation of the root causes. CSB investigators remain at the site today, gathering evidence and interviewing witnesses, and the Board is planning to hold a community briefing in Kinston this spring.

Technic Inc. (Cranston, RI). A February 7 explosion at Technic Inc., a manufacturer of metal plating chemicals, sent a number of workers to the hospital. Fortunately, only one worker was seriously injured, but his injuries were life-threatening. A CSB investigative team was dispatched and identified the possibility of an uncontrolled chemical reaction within the waste vent piping system attached to several chemical reactors. The team continues to investigate the root causes of this accident, which is another example of a serious reactive chemical accident that originated within a waste disposal system.

CTA Acoustics (Corbin, KY). During a brief process shutdown on the morning of February 20, a powerful explosion ripped through the CTA Acoustics plant in southeastern Kentucky. Six people have died from burns received during the explosion, which CSB investigators believe likely involved combustible chemical dust from the process used to make fiberglass automotive insulation. Three workers remain in critical condition. The blast badly damaged the plant, halting production and causing parts shortages at several North American Ford manufacturing sites. CSB staff are continuing to investigate at the CTA plant, conducting interviews, gathering samples, and mapping blast damage. The CSB will hold a community meeting in the Corbin area within the next several months.

Hazard Study – Toxic Gas Emissions (Cincinnati, OH, and nationwide). Following its investigation of the fatal Georgia Pacific hydrogen sulfide incident, the CSB initiated a follow-up study to look more broadly at the problem of toxic gases evolving from waste disposal systems. On December 11, 2002, a few weeks after this study was announced, a serious incident occurred at Environmental Enterprises in Cincinnati, OH, where a worker was overcome by the same gas, hydrogen sulfide, from a waste water treatment system. CSB staff are now reviewing records from around the country to determine how prevalent these incidents are, and their report is expected later in 2003.

Hazard Study – Sodium Hydrosulfide Handling (nationwide). As another outgrowth of its Georgia Pacific investigation, CSB staff are conducting a review of other incidents involving sodium hydrosulfide, the chemical which reacted in the Georgia Pacific sewer to produce the toxic hydrogen sulfide. Evidence indicates that other fatalities have occurred from the interaction of sodium hydrosulfide with acid; this study is examining the sufficiency of current safe handling practices for this substance.

Recommendations Program Launched

Recommendations are CSB's principal tool for promoting chemical safety. Each recommendation has one or more specific recipients, who are the parties best able to carry out the recommended action to improve safety. Once CSB has issued a recommendation, the CSB recommendations staff encourages implementation and tracks compliance. In FY 2002, the CSB issued a total of 67 recommendations and successfully closed 38 recommendations from prior year investigations. The CSB also began posting status information on all recommendations on our website.

The Board aims for 80 percent acceptance of our recommendations over a period of time. In the fifth year of our existence, we are well on the way to achieving that goal. We have received excellent cooperation in virtually every case, and have received only two negative responses to the 141 recommendations that have been issued. On the other hand, we have received numerous responses indicating positive actions underway or planned.

Here are some recent examples of safety accomplishments made as a specific result of CSB recommendations:

- OSHA issued a Technical Information Bulletin on the hazards associated with temporary work enclosures (*CSB Union Carbide investigation*);
- The Institute of Makers of Explosives (IME) developed guidelines for the safe reclamation of explosive materials and the proper training of explosives workers (*CSB Sierra Chemical investigation*);
- The American Petroleum Institute developed its first recommended practices for the safe operation of onshore oil and gas production facilities, including worker training, process design, and work practices (*CSB Sonat investigation*);
- The Morton International Chemical Company has taken actions to improve reactive chemical safety at its plants, including re-evaluating hazards, adding safety alarms, revising operating procedures, and investigating near-miss events (*CSB Morton investigation*);
- The National Propane Gas Association and the Fire Service Institute of Iowa revised their fire fighting training materials to include appropriate precautionary measures for flammable gas explosions (*CSB Herrig investigation*).

Outreach and Data Efforts Refocused

Responding to recommendations from the Committee and the Inspector General, the Board restructured the agency's outreach efforts to ensure they are cost-effective and help to advance the agency's statutory mission to prevent accidents. Plans for a freestanding outreach office with up to five FTEs were cancelled, with most positions reassigned to investigations. Instead the agency has focused on making sure that key safety information from its own investigations becomes widely known. In lieu of a freestanding outreach office, the agency has established a small coordinating committee of existing staff who ensure that outreach activities are directly related to getting CSB safety recommendations adopted.

The Board also withdrew a strategic goal to develop its own accident data system and instead convened a data roundtable discussion in November 2002, jointly with EPA and OSHA. The roundtable resulted in broad agreement on measures to improve EPA's data collection program – measures that will benefit CSB and other government agencies that need to look at accident rates. In addition, CSB continues to work with other agencies, such as the Agency for Toxic Substances and Disease Registry, to better utilize other federal incident data systems.

The agency has also begun a highly successful program of public and community meetings in connection with our accident investigations. Since our last hearing, we have held public meetings in Paterson, NJ; Wilmington, DE; Festus, MO; Houston, TX (twice); and Pascagoula, MS. These meetings are held in communities where accidents have occurred, and most are also broadcast over the Internet. The meetings have been well attended and have drawn sizeable audiences of Internet viewers, including safety professionals who work in similar industries. We use these public meetings to discuss and release our investigative findings and recommendations and also to hear specific community concerns about chemical accident hazards.

Management Improvements

We made a number of management improvements during the past year, in part as an outgrowth of work by the CSB Inspector General (IG). Ten recommendations from a March 2002 IG report were all successfully implemented by the agency by the end of the September. Among the changes, CSB developed new legal procedures for handling vacancies in the Chair; expanded delegation to the COO and the career staff; improved tracking of staff time and resources; and streamlined its strategic goals and office structure. CSB also successfully petitioned OPM for special hiring authority to fill numerous vacancies in its investigations and recommendations programs. Armed with this temporary authority we hired seven new investigators and specialists by the end of the fiscal year.

In June 2002, the agency recruited its first full-time COO in more than two years. This action relieved the General Counsel of collateral responsibilities and provided a single, full-time manager for day-to-day operations. CSB also accepted six additional IG recommendations related to personnel management and has recently hired a full-time human resources manager to oversee this important function.

With the swearing in of a new Chairman, a fifth Board member, and a full-time Chief Operating Officer, the agency's management has reached full operating strength for the first time in its history. As one senior industry safety official wrote the Board recently, "I think the CSB has made *truly exceptional* progress ... to a group publishing *excellent* investigation reports, facilitating discussions on issues facing the chemical industry, etc.... You have arrived [emphasis in original]"

FY 2004 Budget Request

This Committee has urged the Board to undertake more investigations and hazard studies, and we want to produce more work. We are requesting a budget increase of \$1 million to provide adequate resources for our expanded investigative staff to do the work that Congress wants.

With almost 40 personnel – mostly engineers, scientists, and technical specialists -- the CSB is poised to achieve its statutory mission of protecting lives and property by investigating and preventing chemical accidents, and we are already producing significant results. The agency has pledged to produce up to 12 investigation reports in FY 2004, up from a rate of just three a year in FY 2002.

The expansion of the investigations program and the hiring of additional investigators have had a significant budgetary impact. In addition, we now have major investigations underway in North Carolina and Kentucky, on a scale that is unprecedented for our agency. The public expects CSB to conduct prompt, thorough, authoritative investigations of both accidents. We have significant, unavoidable expenses for contracting with outside experts to assist those investigations – such as dust explosion experts – expenses that could not possibly have been anticipated in our FY2003 budget.

During both FY 2001 and 2002, CSB spent less than its full annual appropriation, resulting in unspent “carryover” balances at the end of each fiscal year. For example, at the end of FY 2002, CSB had \$1.4 million in unspent two-year funds, out of an appropriation of \$7.85 million.

However, our expenses for FY 2003 will total an estimated \$8.6 million, including current year appropriations, carryover funds, and prepaid contract items. By comparison, the agency’s FY 2003 appropriation is only \$7.85 million, of which \$1.4 million must be drawn from previous carryover funds. Because we pre-funded certain FY 2003 expenses during last year, we can currently function despite the apparent imbalance between our current expenses and our FY 2003 appropriation.

Because of the agency’s financial condition in FY 2003, however, the CSB will have no available carryover moneys entering FY 2004. In addition, we lack the financial means to prefund FY 2004 expenses to any significant extent. Thus at the beginning of FY 2004, CSB will need to be funded entirely from new appropriations.

The Board plans to increase output to 12 investigations and studies per year, which will impose additional travel and contract costs next year. Likewise we also intend to continue our highly successful program of briefings and Board meetings conducted outside of Washington, in the field. Information included with the agency’s budget request shows that if the CSB is funded at the \$8 million level in FY 2004, we will face an immediate shortfall on October 1, 2003, of almost \$1 million per annum, which will have a serious adverse effect on our operations and our ability to retain needed staff.

In FY 2004 the Board will have a full complement of Board members and an adequate staff to meet our objectives. I ask the Committee’s support to let us continue to accomplish the mission Congress gave us - to protect workers, the public, and the environment from chemical accidents.